

REMARKS / ARGUMENTS

The present Amendment is in response to the Examiner's Final Office Action mailed March 5, 2007. Claims 17 and 37-45 are cancelled and claims 1, 25 and 27 are amended. Claims 1-16, and 18-36 remain pending in view of the above amendments.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Further, the remarks or lack of remarks are not to be construed as an admission regarding the teachings of the cited art or as to assertions made by the Examiner. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Rejection Under 35 U.S.C. § 103

The Office Action rejected claims 1-16 and 18-45 as being unpatentable over U.S. Patent No. 6,909,554 (*Liu*). Applicants respectfully traverse the Examiner's rejection for obviousness on the grounds that the reference does not teach or suggest each and every element of the rejected claims.

Embodiments of the invention are directed to an optical coupling system. As noted in the specification, embodiments of the invention achieve high coupling efficiency. Claim 1 has been amended to recite that the window is placed at a distance from the microlens to achieve a particular coupling efficiency. Figures 15 and 16 of the specification, for example, illustrate the impact of the distance between the lens and the window on coupling efficiency.

In contrast, the distance between the lens and the fore optic taught by *Liu* appears to be selected according to a curvature of field aberration. More particularly, *Liu* teaches that "one common aberration is a curvature of field aberration, which causes the light to be focused on a curved surface, such as a sphere, rather than on the

surface of a plane". See col. 1, lls. 39-41. To overcome this particular problem, *Liu* teaches that "each micro lens has a focal length that varies in a manner necessary to relay or focus the optoelectronic device aperture onto the non-planar fore optic image surface". See col. 2, lls. 8-11. This is illustrated, for example, in Figure 19 of *Liu*.

In fact, *Liu* teaches that to "compensate for the non-planar focal field of the fore optic, each opto-electronic device has a corresponding micro lens. Each micro lens has a focal length and/ or separation distance between it and it respective opto-electronic device, which compensates for the non-planar focal field of the fore optic." See *Liu* abstract.

It therefore appears that the separation distance taught by *Liu* is selected to compensate for the non-planar focal field of the fore optic. In contrast, claim 1 requires that the window be placed at a distance to achieve a particular coupling efficiency. Thus, a distance that achieves a particular coupling efficiency is not taught or suggested by a distance selected to compensate for the non-planar focal field of the fore optic.

Similar to claim 1, claim 25 has also been amended to require that the particular coupling efficiency is achieved by the selection of a thickness of each post, a height of each lens, or a radius of each lens. These factors are selected to achieve a particular coupling efficiency. Figures 9-14 illustrate the impact of these factors on coupling efficiency.

While these factors in claim 25 are selected to achieve a particular coupling efficiency, *Liu*, in contrast, appears to suggest that these factors are selected to compensate for the non-planar focal field of the fore optic. For example, Figures 8a-8f illustrate that the lenses are formed such that each lens has a particular focal length. See col. 11, lls. 30-47. *Liu* further states that each "micro lens may have a focal length that compensates for the field of curvature of the fore optic 4. See col. 5, lls. 52-53. Micro lenses that compensate for the field of curvature, however, do not teach or suggest a thickness of each post, a height of each lens, or a radius of each lens that are selected to achieve a particular coupling efficiency.

For at least these reasons, Applicant respectfully submits that independent claims 1 and 25 are patentable over *Liu*. Independent claim 27 is patentable over *Liu*

for at least the same reasons as claim 1. The remaining claims 2-16, 18-24, 26, and 28-36 are dependent claims and are patentable for at least the reasons discussed herein with respect to the independent claims.

Conclusion

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Respectfully submitted,

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